BIKE-SHARING DEMAND ANALYSIS

TEAM MEMBERS

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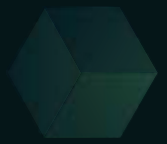
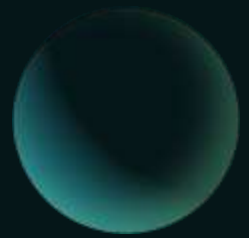
PROBLEM STATEMENT

- Aims to accurately forecast the demand for its bike-sharing service across diverse locations.
- Accurate prediction is essential for effective planning of bicycles, stations, and maintenance personnel.
- Demand for bike-sharing is influenced by multiple factors including season, weather conditions, weekdays, holidays, etc., necessitating the development of a reliable forecasting system for optimal resource allocation and customer satisfaction.





MOTIVATION

- **Optimal Resource Allocation:** By accurately anticipating demand, We can efficiently allocate resources such as bicycles, stations, and maintenance personnel. This ensures that they have the right number of bikes available at each location, preventing shortages during peak times and minimizing excess capacity during off-peak periods.
- **Enhanced Customer Experience:** Anticipating demand enables to provide a seamless and reliable service to its customers , and it can can meet customer expectations for convenient and accessible transportation options. This contributes to overall customer satisfaction and loyalty to the respective company .
- **Operational Efficiency:** Predicting demand allows us to streamline its operations and reduce unnecessary costs.

DATASET USED FOR VISUALIZATION

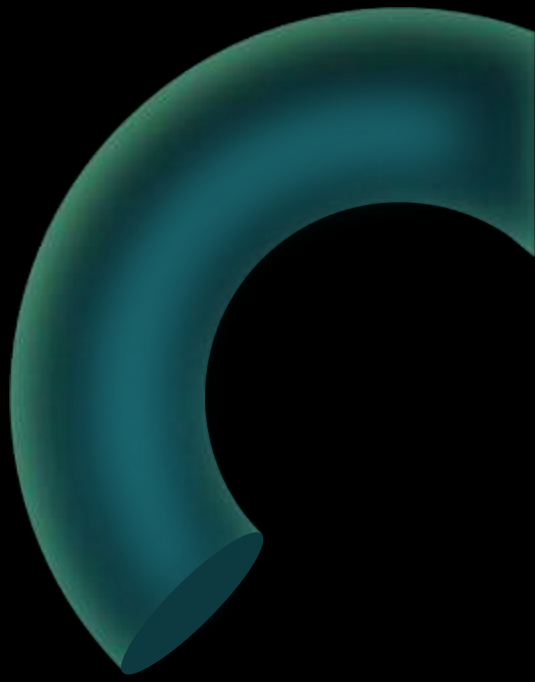
LYFT_BIKE_DEMAND_ANALYSIS

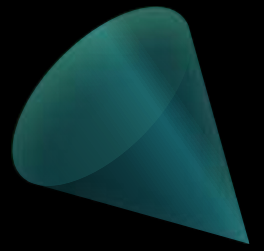
- Using data visualization to understand what factors affect the number of bike trips. Make a predictive model to predict the number of trips in a particular hour slot, depending on the environmental conditions.

LIBRARIES

- **Pandas Library** : We are leveraging the Pandas library for data manipulation and analysis.
- **Matplotlib and Seaborn** : We are using Matplotlib and Seaborn for creating insightful visual representations.
- **Interactive Visualizations** : Our project also explores interactive visualization frameworks for engaging presentations.

THANK YOU





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